



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,260	06/09/2005	Peter Gravesen	6495-0108WOUS	3290
35301 7590 12/12/2007 MCCORMICK, PAULDING & HUBER LLP CITY PLACE II 185 ASYLUM STREET HARTFORD, CT 06103			EXAMINER DAVIS, OCTAVIA L	
			ART UNIT 2855	PAPER NUMBER
			MAIL DATE 12/12/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/538,260	Applicant(s) GRAVESEN ET AL.	
	Examiner Octavia Davis	Art Unit 2855	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2007.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6/9/05 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>9/25/07, 10/23/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 – 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al (3,875,481) in view of Benslimane et al (WO 02/37660) and Severwright (4,549,093).

Regarding claims 1 and 11, Miller et al disclose a capacitive weighing mat comprising a first pressure transfer layer 11, a second pressure transfer layer 12, an elastomeric body 13 arranged between the first and second pressure transfer layers, the body having a first surface and a second surface opposed to each other, the first and second surfaces having corrugations 14 attached via layers 14, 15, a first electrode 11 arranged on the first surface and a second electrode 12 arranged on the second surface, the first and the second electrodes being connectable to external means 21 for determining the capacitance of a capacitor formed by the elastomeric body and at least one transfer layer has at least one portion of increased thickness (See Col. 2, lines 42 – 53, See Fig. 1) but does not disclose that the first and second surfaces of the elastomeric body include corrugations and the sensor elements are arranged in a row and column configuration and are formed in the common elastomeric body member, the body member constituting a continuous sequence of sensor body elements. However, Benslimane et al disclose an actuating member and method for producing the same comprising an elastomeric body 2 having first and second boundary surface layers 3, 4

Art Unit: 2855

included waved-shaped protrusions (See Fig. 2). Severwright discloses a tactile sensor array comprising an array of parallel row conductors 1, an array of parallel column conductors 2, a material layer 3 disposed between the conductors (See Col. 2, lines 56 – 64), a sheet material 6 overlying the conductors, raised protrusions 7 located on the sheet for maintaining the sheet and the conductors in spaced relationship (See Severwright, Col. 3, lines 1 – 9).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Miller et al according to the teachings of Benslimane et al and Severwright for the purposes of, improving the mechanical extensibility of an actuating element and providing a sensor array and circuit arrangement for detecting substantially all crossing points within an area of the surface of a conductive sheet to which pressure is applied and generating electrical signals indicative of the locations of the crossing points to which pressure is applied relative to the first and second arrays (See Severwright, Col. 1, lines 44 – 50).

Regarding claim 2, in Miller et al, at least one pressure transfer layer 11, 12 has a central portion of increased thickness and, on each side of the central portion in the predetermined direction of extension of the body, an end portion of decreased thickness (See Fig. 2).

Regarding claims 3 and 4, in Miller et al, the exterior conductive layers 11, 12 are isolated from the central layer 13 (See Fig. 1, See Col. 2, lines 60 – 64).

Regarding claim 5, in Miller et al, the protrusions 30, 32 are separated by a thin web 14a which aids in the linear output capacitance change value being within a preselected limit (See Col. 2, lines 56 – 60 and Col. 3, lines 22 – 28).

Regarding claims 6 and 7, in Miller et al, the thickness of the pressure transfer layer (0.070 inch) is substantially equal to the thickness of the elastomeric body (0.050 inch) (See Col. 2, lines 46

Art Unit: 2855

– 49 and Col. 4, lines 18 – 24) and the layers have similar elastomeric properties (See Col. 2, lines 43 – 46).

Response to Arguments

3. Applicant's arguments filed 9/25/07 have been fully considered but they are not persuasive. In response to applicant's arguments that the references do not disclose *an elastomeric body having opposed first and second surfaces with corrugations, first and second electrodes on the surfaces and located between the first and second pressure transfer layers, the layers being above and below the conductive layers and one pressure layer having a portion of increased thickness*, it is the examiner's position that in Miller, the elastomeric body 13 is arranged between the pressure transfer layers 11, 12 of which are electrode or conductive layers (Col. 2, lines 42 – 46) that are each arranged on the first and second surfaces of the body 13, Benslimane et al disclose an elastomeric body 2 having first and second boundary layers 3, 4 that include the wave shaped protrusions 5, 6 on the first and second surfaces of the body 2 (See Fig. 2) and in Miller, the layers 11, 12 have a thickness of for example 0.070 inches, wherein the specific thickness is made based on a specific criteria to enable various thicknesses (See Col. 2, lines 46 - 49), thus the references still stand.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

Art Unit: 2855

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Octavia Davis whose telephone number is 571-272-2176. The examiner can normally be reached on Mon through Thurs from 9 to 5. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz, can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

OD/2855

11/28/07


EDWARD LEFKOWITZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800